FIG. 1

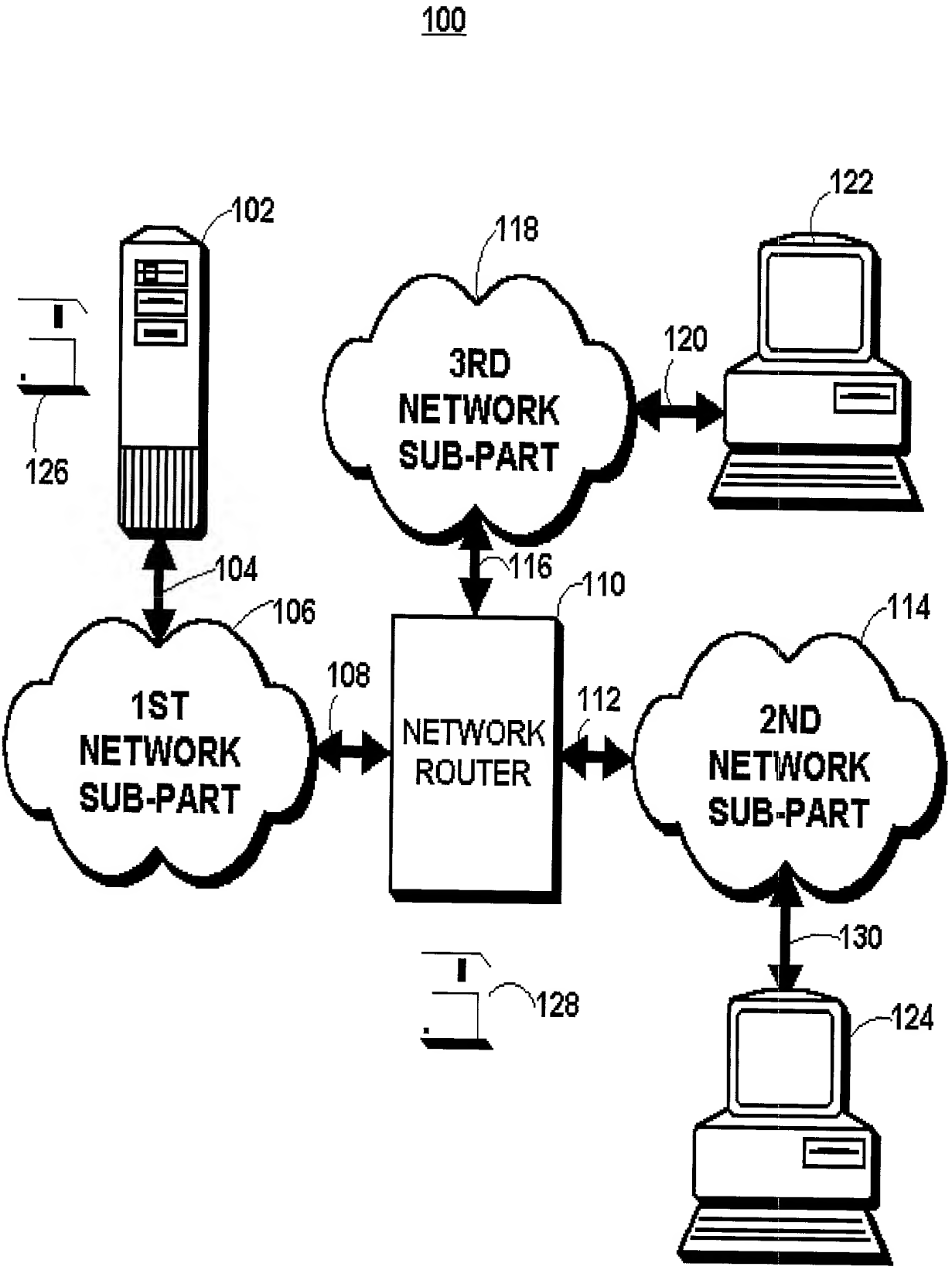

100
102
118
122
3RD NETWORK SUB-PART
120
126
104
116
110
106
114
108
1ST NETWORK SUB-PART
NETWORK ROUTER
112
2ND NETWORK SUB-PART
130
128
124

FIG. 2

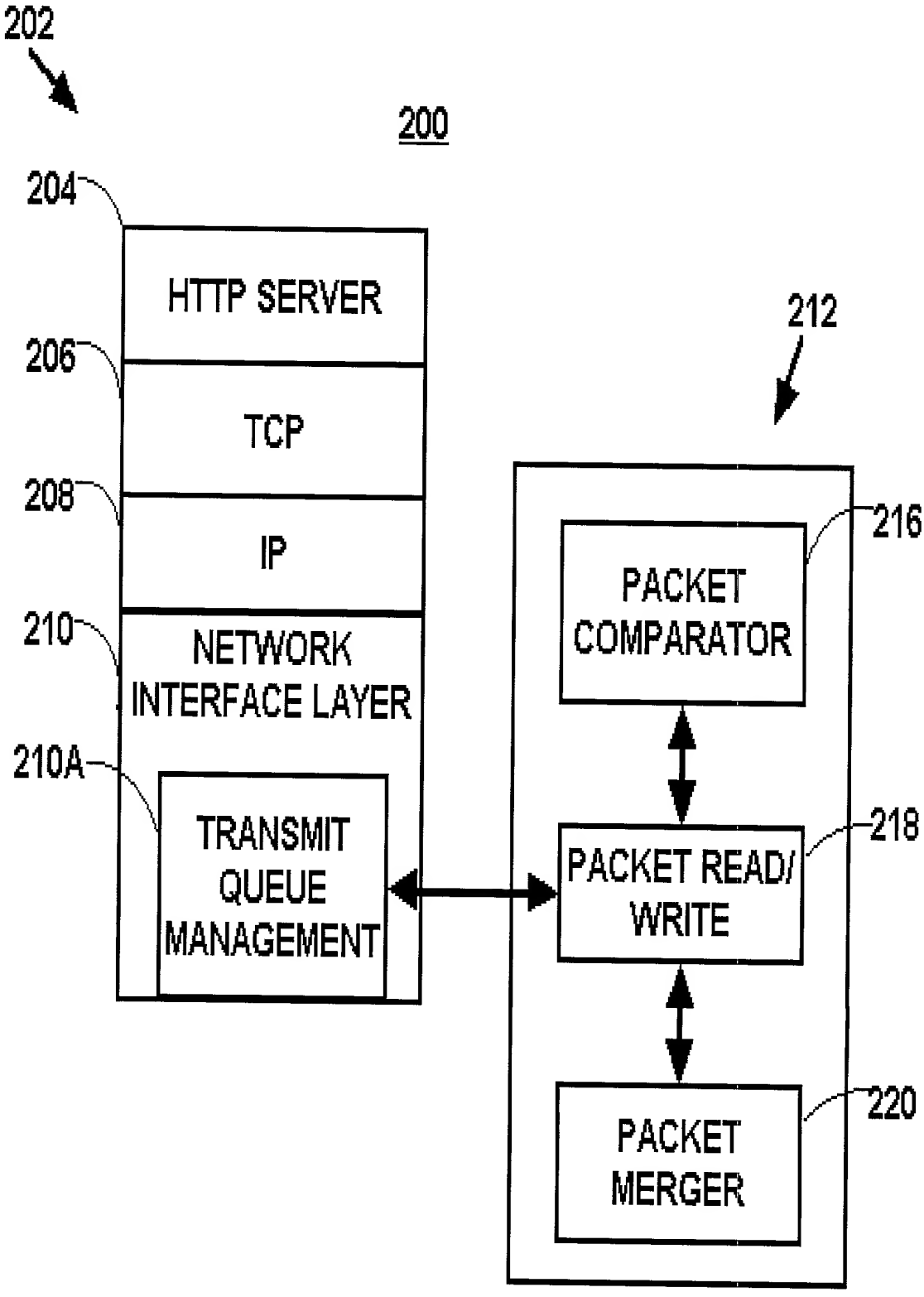

202
200
204
HTTP SERVER
206
TCP
208
IP
210
NETWORK INTERFACE LAYER
210A
TRANSMIT QUEUE MANAGEMENT
212
216
PACKET COMPARATOR
218
PACKET READ/ WRITE
220
PACKET MERGER

FIG. 3

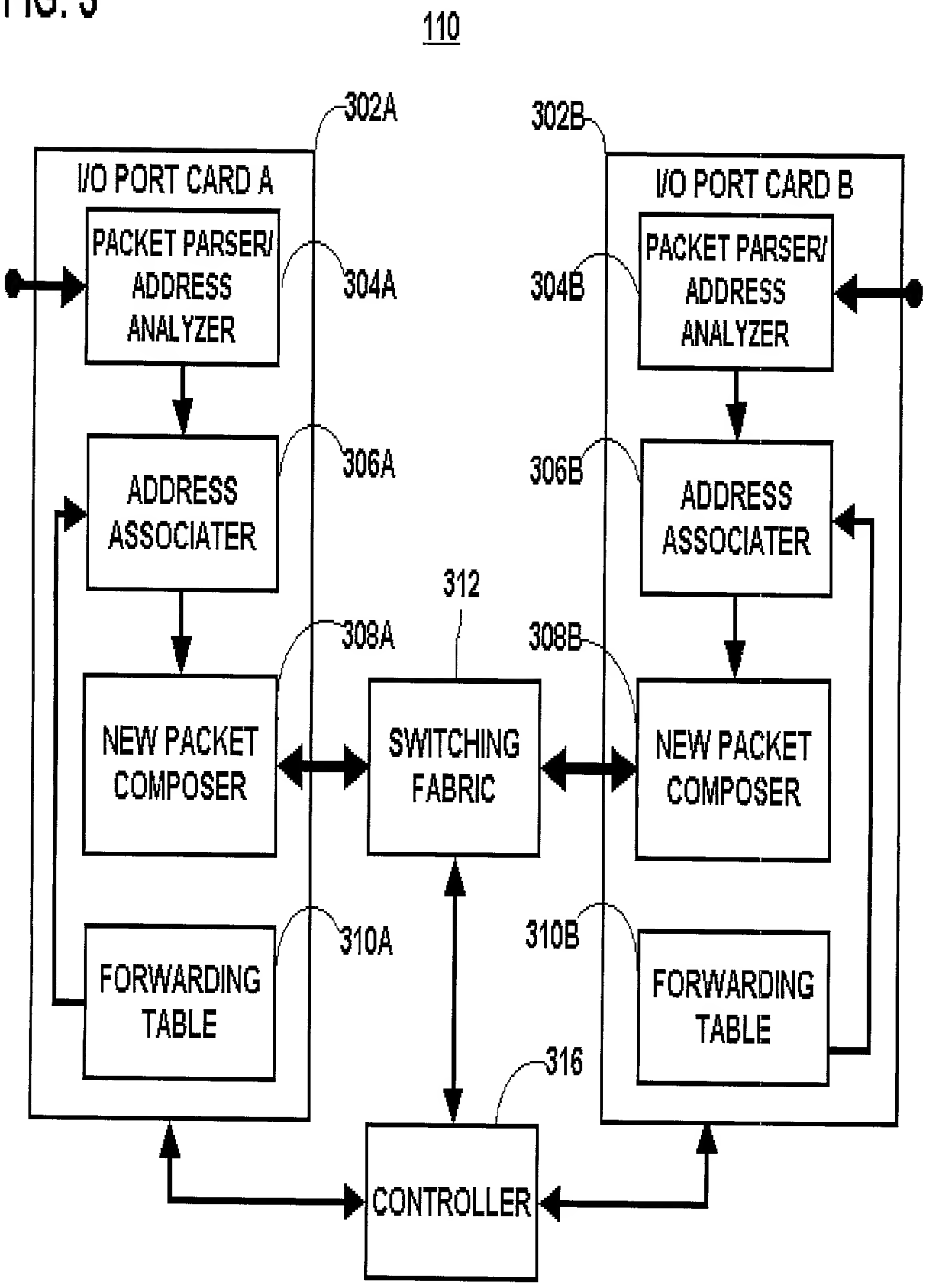

110
302A
I/O PORT CARD A
PACKET PARSER/ ADDRESS ANALYZER
304A
ADDRESS ASSOCIATER
306A
NEW PACKET COMPOSER
308A
FORWARDING TABLE
310A
302B
I/O PORT CARD B
PACKET PARSER/ ADDRESS ANALYZER
304B
ADDRESS ASSOCIATER
306B
NEW PACKET COMPOSER
308B
FORWARDING TABLE
310B
312
SWITCHING FABRIC
316
CONTROLLER

FIG. 4A

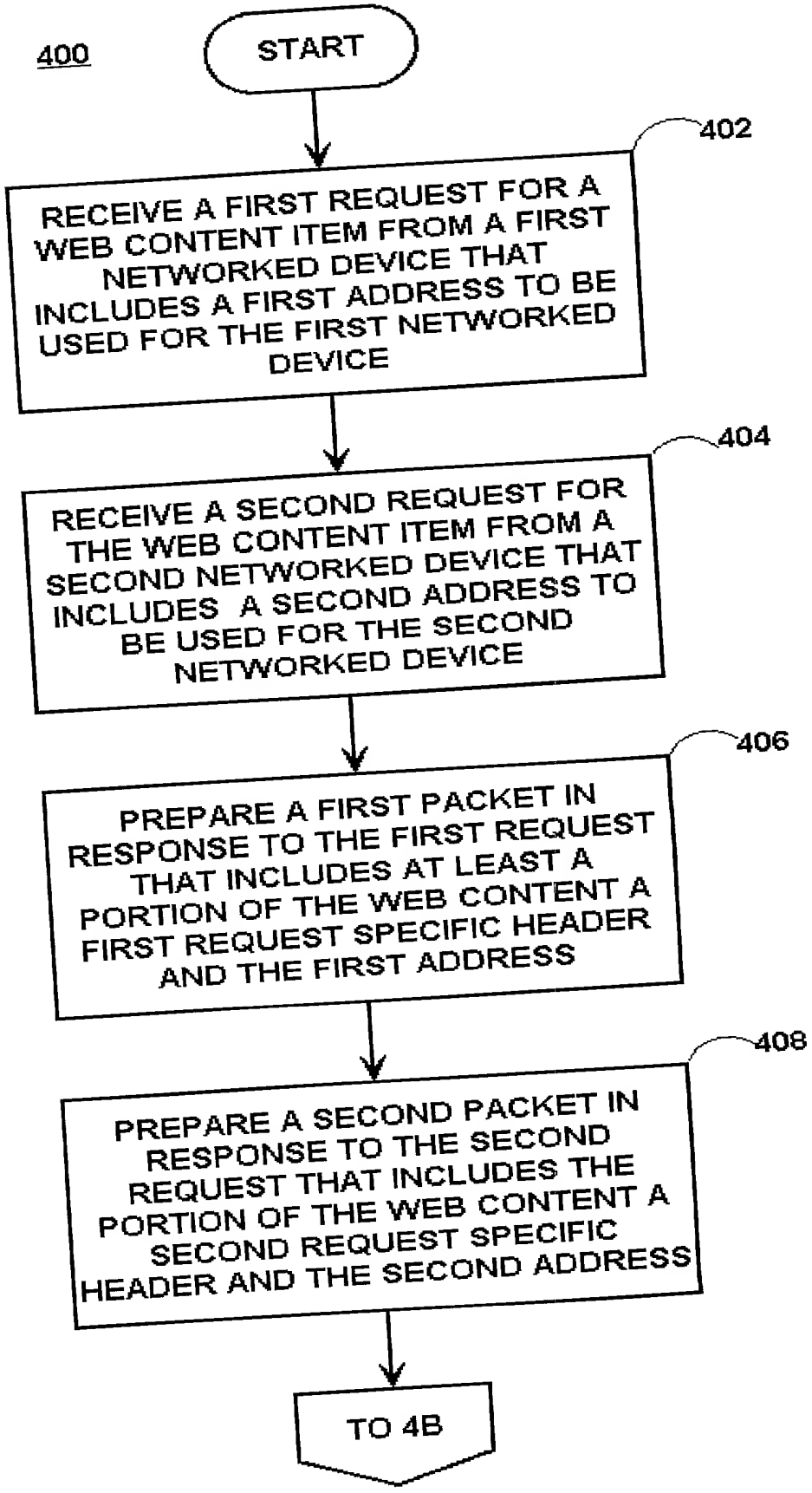

400
START
402
RECEIVE A FIRST REQUEST FOR A WEB CONTENT ITEM FROM A FIRST NETWORKED DEVICE THAT INCLUDES A FIRST ADDRESS TO BE USED FOR THE FIRST NETWORKED DEVICE
404
RECEIVE A SECOND REQUEST FOR THE WEB CONTENT ITEM FROM A SECOND NETWORKED DEVICE THAT INCLUDES A SECOND ADDRESS TO BE USED FOR THE SECOND NETWORKED DEVICE
406
PREPARE A FIRST PACKET IN RESPONSE TO THE FIRST REQUEST THAT INCLUDES AT LEAST A PORTION OF THE WEB CONTENT A FIRST REQUEST SPECIFIC HEADER AND THE FIRST ADDRESS
408
PREPARE A SECOND PACKET IN RESPONSE TO THE SECOND REQUEST THAT INCLUDES THE PORTION OF THE WEB CONTENT A SECOND REQUEST SPECIFIC HEADER AND THE SECOND ADDRESS
TO 4B

FIG. 4B

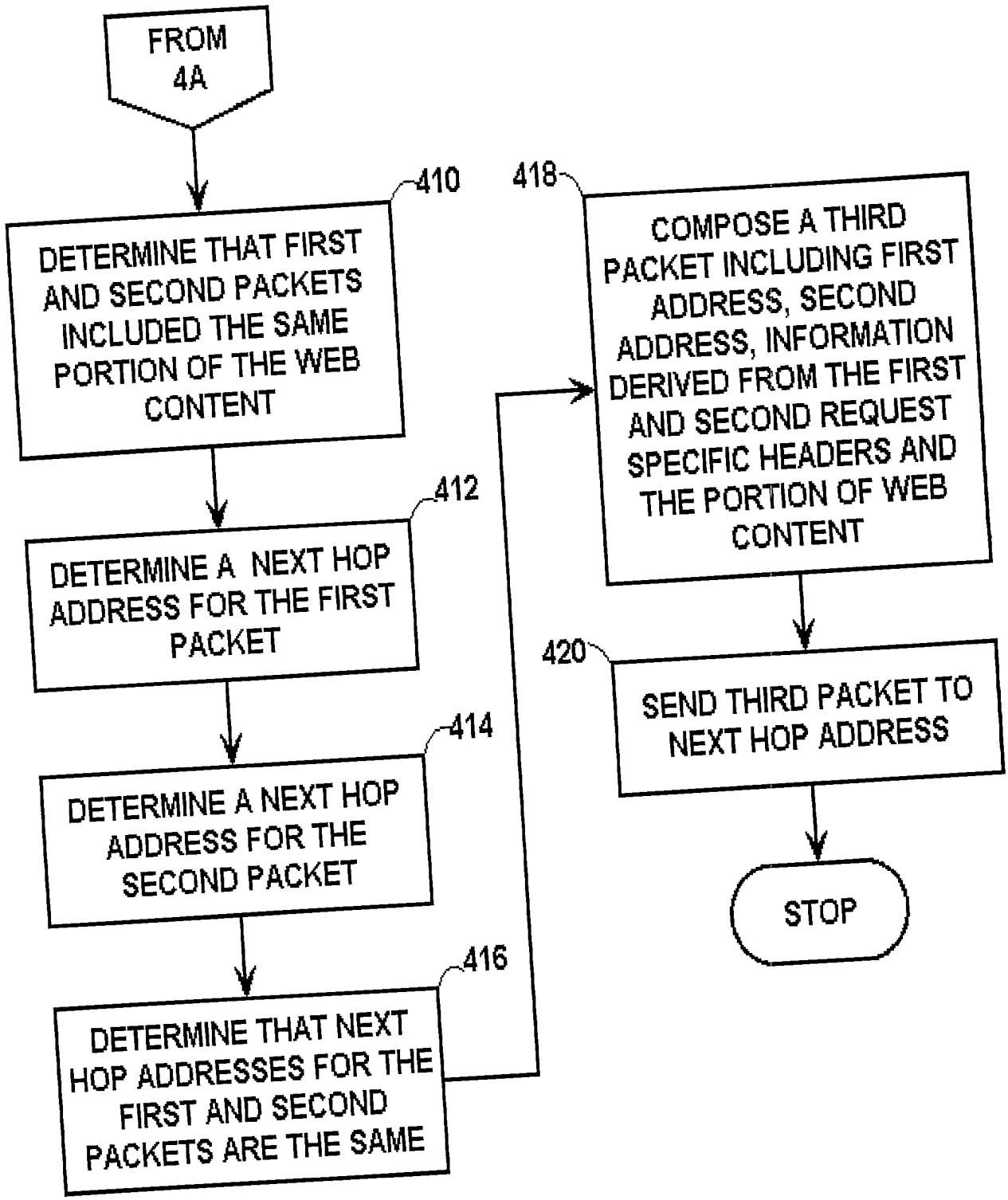

FROM 4A
410
DETERMINE THAT FIRST AND SECOND PACKETS INCLUDED THE SAME PORTION OF THE WEB CONTENT
412
DETERMINE A NEXT HOP ADDRESS FOR THE FIRST PACKET
414
DETERMINE A NEXT HOP ADDRESS FOR THE SECOND PACKET
416
DETERMINE THAT NEXT HOP ADDRESSES FOR THE FIRST AND SECOND PACKETS ARE THE SAME
418
COMPOSE A THIRD PACKET INCLUDING FIRST ADDRESS, SECOND ADDRESS, INFORMATION DERIVED FROM THE FIRST AND SECOND REQUEST SPECIFIC HEADERS AND THE PORTION OF WEB CONTENT
420
SEND THIRD PACKET TO NEXT HOP ADDRESS
STOP

FIG. 5

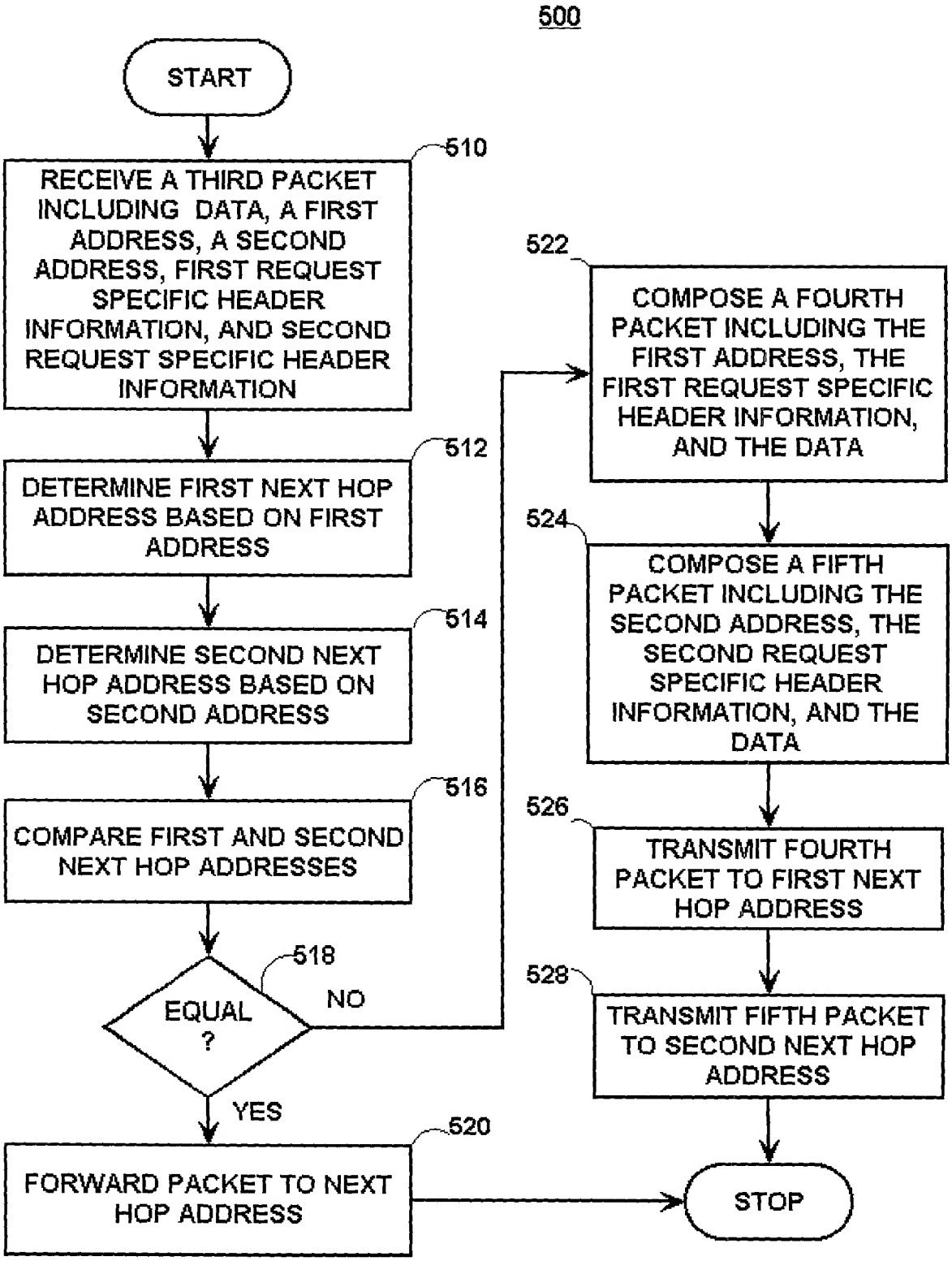
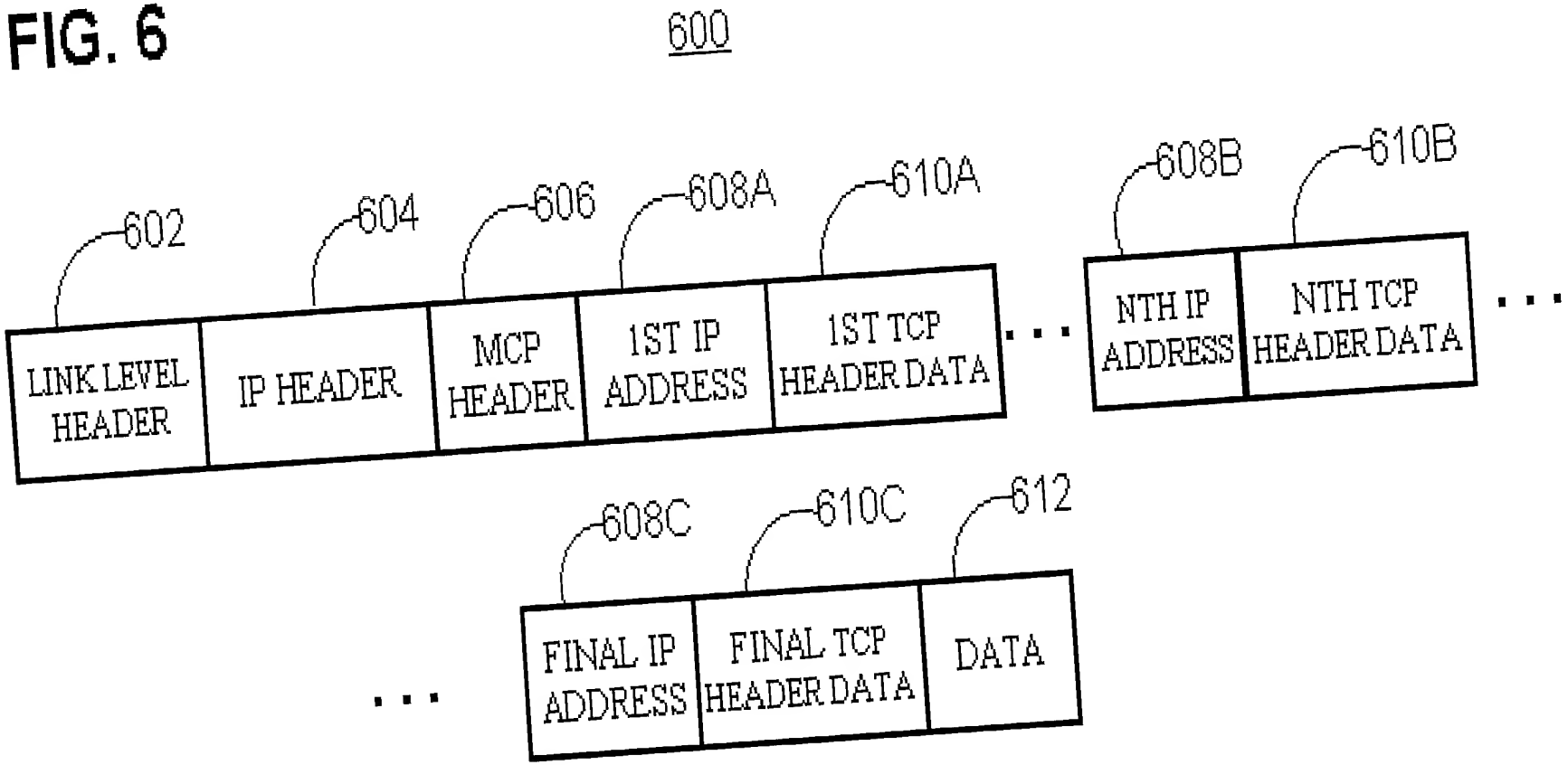

500
START
510
RECEIVE A THIRD PACKET INCLUDING DATA, A FIRST ADDRESS, A SECOND ADDRESS, FIRST REQUEST SPECIFIC HEADER INFORMATION, AND SECOND REQUEST SPECIFIC HEADER INFORMATION
512
DETERMINE FIRST NEXT HOP ADDRESS BASED ON FIRST ADDRESS
514
DETERMINE SECOND NEXT HOP ADDRESS BASED ON SECOND ADDRESS
516
COMPARE FIRST AND SECOND NEXT HOP ADDRESSES
518
EQUAL ?
NO
YES
520
FORWARD PACKET TO NEXT HOP ADDRESS
522
COMPOSE A FOURTH PACKET INCLUDING THE FIRST ADDRESS, THE FIRST REQUEST SPECIFIC HEADER INFORMATION, AND THE DATA
524
COMPOSE A FIFTH PACKET INCLUDING THE SECOND ADDRESS, THE SECOND REQUEST SPECIFIC HEADER INFORMATION, AND THE DATA
526
TRANSMIT FOURTH PACKET TO FIRST NEXT HOP ADDRESS
528
TRANSMIT FIFTH PACKET TO SECOND NEXT HOP ADDRESS
STOP

FIG. 6


600
602
604
606
608A
610A
608B
610B
LINK LEVEL HEADER
IP HEADER
MCP HEADER
1ST IP ADDRESS
1ST TCP HEADER DATA
NTH IP ADDRESS
NTH TCP HEADER DATA
608C
610C
612
FINAL IP ADDRESS
FINAL TCP HEADER DATA
DATA